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THE INFLUENCE OF GOVERNMENT OWNERSHIP ON FIRMS  
PERFORMANCE: A QUANTITATIVE STUDY ON JORDAN LISTED FIRMS



Thesis Submitted to  
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**Pusat Pengajian Ekonomi,  
Kewangan dan Perbankan**

SCHOOL OF ECONOMICS, FINANCE, AND BANKING

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## Abstract

Lately, most Arab region countries have cultivated the new economic reformation which often linked with economic growth and its ability to enhance financial deepening. This study investigates the government ownership and its association with firm performance. The study used 103 public listed samples on Amman Stock Exchange from 2011-2015. The data measures the relationship of three levels of government ownership with a median point of 28% as well as full government ownership and six financial ratios as control variables to firm performance (ROA, ROE and EPS). Based on the multiple linear regression method with the use of SPSS package, four sets of different regression analysis have been conducted and found statistically mixed results when takes into consideration the year effect and level of government ownership. An insignificant relationship was found between government ownership concentration (breaking up the level of government ownership) and firm performance (ROA, ROE and EPS) when year effect was taken into consideration. However, when year effect was ignored, significant results found for EPS only and conclude low government ownership negatively related with firm performance.

When full government ownership was used without breaking up the level of government ownership, the statistical result is positively linked with firm performance. The ROE is positively related at 5% significant level when its R-Square is 16.9%. A Similar finding was found when the year effect was ignored. It also found that control variables like long term debt to total assets and age are consistently significant at 1% with all three dependent variables. Meaning, the longer the firm has been established the better the financial performance of the firm. On the other hand, higher level government ownership may help to boost the firm performance through the government interference (Wasta).

Keywords: government ownership, firm performance, 'wasta'.

## ABSTRAK

Sejak kebelakangan ini, negara-negara arab memasuki era reformasi ekonomi baru yang sering dikaitkan dengan pencapaian ekonomi dan kebolehan mengecapi kewangan yang mendalam. Kajian ini bertujuan mengkaji hubungan pegangan saham kerajaan dalam syarikat awam dan prestasi syarikat tersebut. Kajian ini mengambil-kira 103 sampel syarikat yang tersenarai di Bursa Saham Amman (Jordan) dari 2011-2015. Data ini digunakan untuk mengkaji kaitan pegangan saham kerajaan yang di pecahkan kepada tiga takat pegangan melalui nisbah 28% sebagai 'median point' dan tanpa dipecahkan iaitu pegangan penuh saham kerajaan dalam syarikat tersebut bersama enam nisbah kewangan yang berfungsi sebagai 'control variables' untuk menilai prestasi syarikat yang dinilai oleh nisbah 'ROA, ROE dan EPS'. Kajian ini juga menggunakan kaedah 'Multiple Linear Regression' dengan bantuan SPSS. Keputusan kajian ini telah menyumbang kepada empat analisa 'regression' yang berlainan. Keputusan ini juga mengambil-kira impak tahunan dan kesan berlainan takat pegangan saham kerajaan dalam syarikat awam.

Kajian ini mendapati, hubungan antara berbagai takat saham syarikat kerajaan dengan prestasi syarikat masih dinilakan terlalu kecil walaupun impak tahunan tidak diambil-kira. Keputusan demikian menyimpul bahawa pegangan saham kerajaan yang rendah dalam syarikat awam menyumbang kepada hubungan negative kepada prestasi kewangan syarikat. Walaubagaimanapun, keputusan positif didapati jika pegangan saham kerajaan penuh diuji. Keputusan positif ini memberikan nilai nisbah ROE 5% 'significant' bila R-Square nya adalah 16.9%. Keputusan ini masih selari jika impak tahunan tidak diambil-kira. Keputusan kajian ini dari sudut 'control variables' seperti nisbah kewangan 'long term debt to total assets' dan nisbah 'age' adalah selari dengan 'dependent variables'. Keputusan ini menyimpulkan bahawa lebih lama usia syarikat berurusan dalam perniagaan lebih hebat prestasi kewangan syarikat. Manakala dari sudut yang lain jika pegangan saham kerajaan dalam syarikat awam adalah tinggi akan membrangsangkan prestasi syarikat sekiranya ada penglibatan kerajaan yang dikaitkan dengan (Wasta).

keywords: pegangan saham kerajaan, prestasi kewangan syarikat, 'wasta'.

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## Table of Contents

Permission to Use.....	i
Abstract.....	ii
Abstrak.....	iii
Acknowledgement.....	iv
Table of Contents .....	v
List of Figures.....	viii
List of Tables .....	ix
List of Abbreviations.....	xi
INTRODUCTION.....	1
1.0 Background.....	2
1.1 Jordan and Other MIDA Countries.....	4
1.2 Jordan and Economic performance and Political Uncertainty.....	5
1.3 Jordan and Arab Spring.....	5
1.4 Jordan Firms Characteristics.....	6
1.5 Theory.....	7
1.5.1 The Keynesian Demand Management Theory.....	8
1.5.2 Signalling Theory.....	9
1.5.3 Agency Theory.....	10
1.1 Problem Statement.....	12
1.2 Research Objectives.....	13
1.3 Research Questions.....	14
1.4 Significance of the Study.....	15
1.5 Scope and Limitation of the Study.....	17
1.6 Organization of the Study.....	17
LITERATURE REVIEW.....	18
2.0 Historical Review.....	19
2.1 Conflicting Results of Ownership and Firm Performance.....	20
2.1.1 Negative Results.....	20
2.1.2 Positive Results.....	20
2.2 Foreign ownership.....	21
2.3 Government ownership.....	22
2.4 The Advantage and Disadvantage of Government Ownership.....	27
2.5 Developed Country Market Studies.....	30



2.6	Developing Countries Market Studies.....	33
2.7	Middle Eastern Countries.....	34
2.8	Other papers on Jordan Market.....	35
2.9	How to Measure Firm Performance.....	39
RESEARCH METHODOLOGY.....		40
3.0	Conceptual Framework.....	40
3.1	Dependent Variables.....	44
3.1.1	Return on Assets (ROA).....	44
3.1.2	Return on Equity (ROE).....	45
3.1.3	Earnings Per Share (EPS).....	46
3.2	Independent Variables.....	46
3.2.1	Government ownership variables.....	47
3.2.2	Control variables.....	49
3.2.3	Age.....	50
3.2.4	Capital Expenditures.....	51
3.2.5	Market-to-book ratio.....	51
3.2.6	Liquidity (Current Ratio).....	52
3.2.7	Total asset.....	52
3.2.8	Leverage (Long Term Debt to Total Assets).....	54
3.3	Hypothesis Development.....	56
3.4	Research Design.....	59
3.5	Sampling Technique.....	61
3.6	Data set.....	62
3.6.1	Pooled data.....	64
3.9	Analysis Technique.....	64
FINDINGS .....		70
4.0	Descriptive Analysis.....	70
4.1	Correlation.....	72
4.1.1	Correlation Matrix.....	75
4.1.2	Multicollinearity Test.....	75
4.1.3	Durbin Watson Test.....	76
4.3	Plots.....	77

4.4	Variance Inflation Factor (VIF).....	78
4.5	Inferential Statistics.....	78
4.6	Regression.....	79
4.6.1	Regression Analysis for Amman Stock Exchange.....	80
4.7	The Year effect: 2011 as the base year.....	85
4.8	Findings Summary.....	91
CONCLUSION AND RECOMMENDATION .....		99
5.0	Discussion.....	99
5.1	Contribution of Study.....	105
5.2	Future Studies.....	107
5.3	Limitation.....	107
5.4	Conclusion.....	107
<b>REFERENCES.....</b>		<b>110-133</b>
<b>APPENDICES.....</b>		<b>134-163</b>



## Lists of Tables

Table 3.2 Sector Representation of the Sample Companies in Jordan Equity Market.....	37
Table 3.1 Variable Definitions, Abbreviations and Data Sources.....	52
Table 4.1: Descriptive Statistics of Jordan Equity Market Sample of 103 firms from 2011-2015.....	61
Table 4.2: Pearson Correlation Matrix for firm performance (ROA).....	62
Table 4.3: Pearson Correlation Matrix for firm performance (ROE).....	62
Table 4.4: Pearson Correlation Matrix for firm performance (EPS).....	63
Table 4.5: Durbin Watson Result.....	65
Table 4.6: VIF and Tolerance values of independent variables for ROA, ROE and EPS.....	67
Table 4.7: Regression Analysis for ROA, ROE and EPS for 103 listed firms' independent variables with government ownership low, medium and high with year effect.....	68
Table 4.7.1: Regression Analysis for ROA, ROE and EPS for 103 listed firms' independent variables with government ownership low, medium and high without year effect.....	69
Table 4.7.2: Regression Analysis for ROA, ROE and EPS for 103 listed firms' independent variables with government ownership (all) without year effect.....	70
Table 4.7.3: Regression Analysis for ROA, ROE and EPS for 103 listed firms' independent variables with government ownership (all) with year effect.....	71
Table 4.8 Firm Performance Return for 2011-2015.....	79
Table 5.1: Summary for Research Objective.....	86

## List of Figures

Figure 3.1: Conceptual Framework.....	36
Figure 3.2: Empirical Scientific Cycle.....	51
Figure 4a: ROA Normal distribution of Residual.....	112
Figure 4: ROE Normal distribution of Residual.....	112
Figure 5: EPS Normal distribution of Residual.....	113
Figure 5a: PP Plot for ROA.....	113
Figure 5b: PP Plot for ROE.....	114
Figure 5c: PP Plot for EPS.....	114
Figure 6a: Scatter Plot for ROA.....	115
Figure 6b: Scatter Plot for ROE.....	115
Figure 6c: Scatter Plot for EPS.....	116
Figure 7a: R Square for ROA. Regression analysis, government ownership and year effect.....	117
Figure 7b: Anova for ROA.....	117
Figure 7c: ROA, regression analysis, independent variables, government ownership and year effect.....	118
Figure 8a: R Square for ROE. Regression Analysis, government ownership and year effect .....	119
Figure 8b: Anova for ROE.....	119
Figure 8c: ROE, regression analysis, independent variables, government ownership and year effects.....	120
Figure 9a: R Square for EPS. Regression analysis, government ownership and year effect.....	121
Figure 9b: Anova for EPS.....	121
Figure 9c: EPS, regression analysis, independent variables, government ownership and year effect.....	122

Figure 10a: R Square for ROA. Regression analysis, government ownership and without year effect.....	122
Figure 10b: Anova for ROA.....	123
Figure 10c: ROA, regression analysis, independent variables, government ownership low, medium and high without year effect.....	124
Figure 11a: R Square for ROE. Regression analysis, government ownership and year effect .....	124
Figure 11b: Anova for ROE.....	125
Figure 11c: ROE, regression analysis, independent variables, government ownership low, medium and high without year effect.....	125
Figure 12a: R Square for EPS. Regression analysis, government ownership and year effect .....	126
Figure 12b: Anova for EPS.....	126
Figure 12c: EPS, regression analysis, independent variables, government ownership low, medium and high without year effect .....	127
Figure 13a: R Square for ROA. Regression analysis, government ownership (all) without year effect .....	127
Figure 13b: Anova for ROA.....	128
Figure 13c: ROA, regression analysis, independent variables, government ownership (all) without year effect.....	128
Figure 14a: R Square for ROE. Regression analysis, government ownership without year effect.....	129
Figure 14b: Anova for ROE.....	129
Figure 14c: ROE, regression analysis, independent variables, government ownership (all) without year effect.....	130
Figure 15a: R Square for EPS. Regression analysis, government ownership and year effect .....	130
Figure 15b: Anova for EPS.....	131
Figure 15c: EPS, regression analysis, independent variables, government ownership (all) without year effect.....	131
Figure 16a: R Square for ROA. Regression analysis, government ownership (all) with year effect.....	132
Figure 16b: Anova for ROA.....	132

Figure 16c: ROA, regression analysis, independent variables, government ownership (all) with year effect.....	133
Figure 17a: R Square for ROE. Regression analysis, government ownership (all) with year effect.....	133
Figure 17b: Anova for ROE.....	134
Figure 17c: ROE, regression analysis, independent variables, government ownership (all) with year effect.....	134
Figure 18a: R Square for EPS. Regression analysis, government ownership (all) with year effect.....	135
Figure 18b: Anova for EPS.....	135
Figure 18c: EPS, regression analysis, independent variables, government ownership (all) with yeareffect.....	136
Figure 10. Jordan Economy Data from 2012-2015.....	137

## List of Abbreviations

ROA	Return on Assets
ROE	Return on Equity
EPS	Earnings Per Share
PP Plot	Probability plot or percent plot or P value plot
Anova	Analysis of variance
R square	Coefficient of Determination



## **CHAPTER ONE**

### **INTRODUCTION**

In the recent decade Middle Eastern countries are driving to develop their economy by cultivating openness and getting more outside capital rather than being too dependable on its own government funding. This intention is consistent with Jordanian firms that expand their business operation and activities by privatizing some of their government owned firms. The Jordanian government privatized their program since early nineties. It is an on-going program that supports the participation of the private sector in economic growth. The Jordanian government privatization action plan was adopted as part of the economic package. This plan was expected to help to adjust the economy especially since the aftermath of economic crisis in early nineties. Since then the government adopt an openness policy of its market to the world. Among the popular one is the partnership with the European Union (EU) and gaining entry into World Trade Organization (WTO). The impact of privatization in Jordan is similar with other developing countries. The Amman Stock Exchange websites has published the survey on the privatization in Jordan and concluded different views for privatised and non-privatised agencies. The privatised firms revealed it's efficient in its administrative and employment policies, its ability to earn higher return and better job opportunities. However, the non-privatised firm's revealed its inefficiencies in administrative and employment policies, issue of misuse of public funds, high level of owing and double standards in

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## APPENDICES

Figure 4a  
*ROA Normal distribution of Residual*

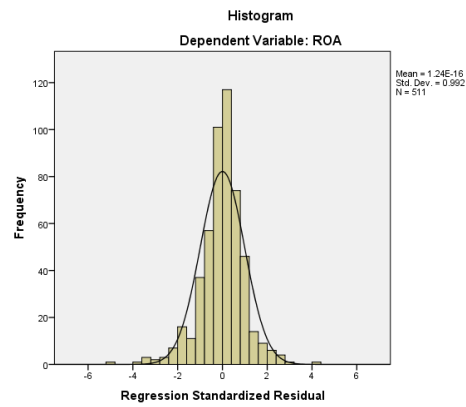


Figure 4  
*ROE Normal distribution of Residual*

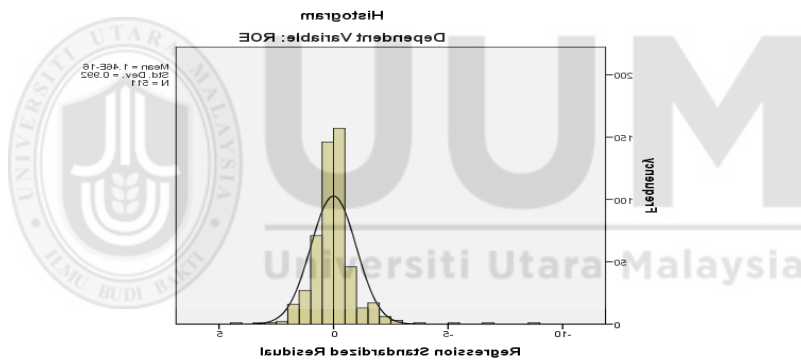




Figure 5  
*EPS Normal distribution of Residual*

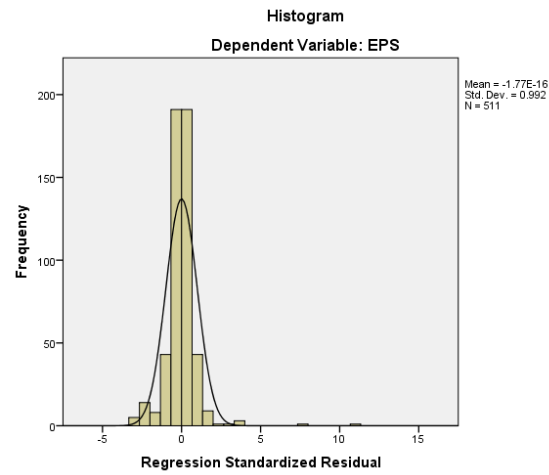


Figure 5a  
*PP Plot for ROA*

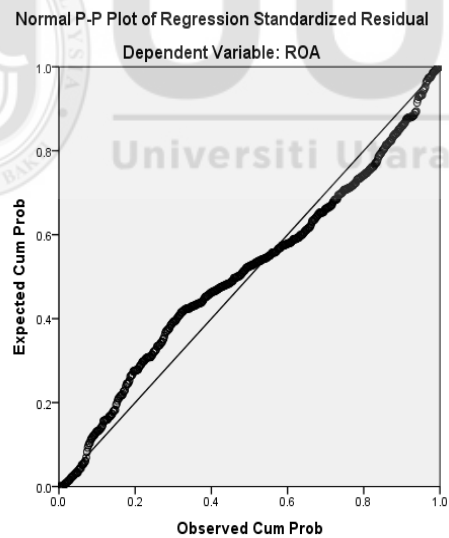


Figure 5b  
*PP Plot for ROE*

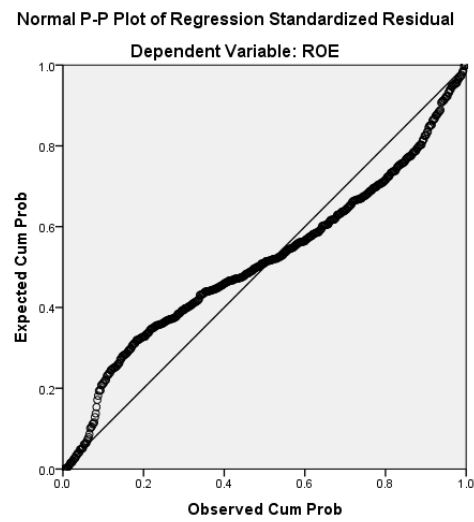


Figure 5c:  
*PP Plot for EPS*

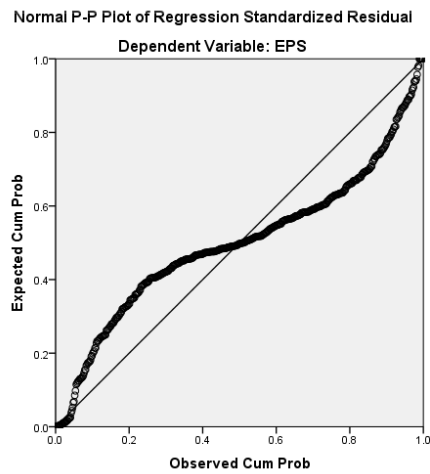


Figure 6a  
*Scatter Plot for ROA*

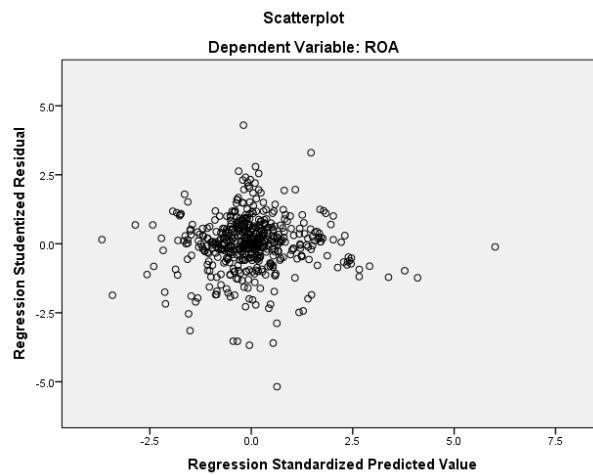


Figure 6b  
*Scatter Plot for ROE*

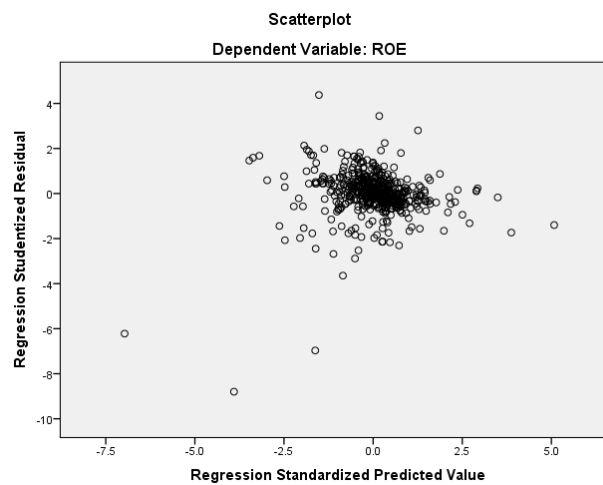


Figure 6c  
*Scatter Plot for EPS*

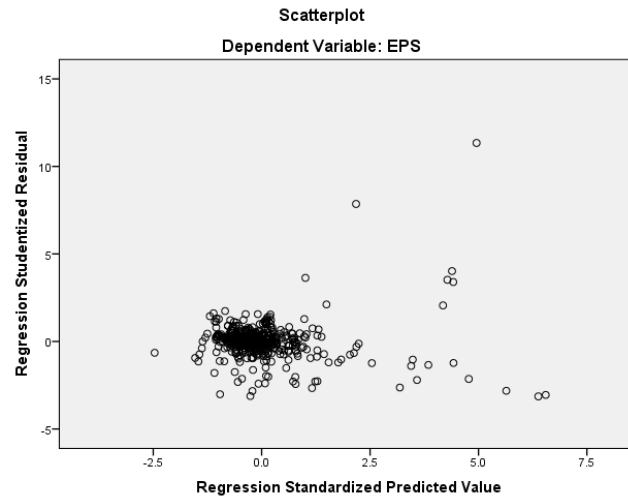


Figure 7a  
*R Square for ROA. Regression analysis, government ownership and year effect*

1	2.	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333 <sup>a</sup>	.111	.088	7.18137917

Figure 7b  
*Anova for ROA.*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3193.710	13	245.670	4.763	.000 <sup>b</sup>
	Residual	25633.957	497	51.577		
	Total	28827.666	510			

a. Dependent Variable: ROA

b. Predictors: (Constant), Yr2015, Capital Exp, GO\_Low, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Yr2013, Age , GO\_Medium, Yr2012, Yr2014, Total Assets, GO\_High

Figure 7c  
*ROA, regression analysis, independent variables,  
government ownership and year effect*

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.602	1.129		-.533	.594
Long Term Debt	-.146	.040	-.159	-3.623	.000
Total Asset					
Total Assets	.000	.001	.015	.271	.787
Market to Book Value	-.515	.269	-.083	-1.917	.056
Capital Exp	.147	.063	.132	2.352	.019
Age	.060	.021	.138	2.898	.004
Current Ratio	.255	.119	.093	2.136	.033
GO_Low	-.077	.050	-.090	-1.547	.122
GO_Medium	-.027	.028	-.052	-.957	.339
GO_High	-.001	.014	-.006	-.103	.918
Yr2012	2.029	1.011	.108	2.008	.045
Yr2013	1.872	1.008	.100	1.856	.064
Yr2014	1.914	1.006	.102	1.903	.058
Yr2015	.297	1.008	.016	.294	.769
a. Dependent Variable: ROA					

Figure 8a:

*R Square for ROE. Regression Analysis, government ownership and year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446 <sup>a</sup>	.199	.178	15.481178
a. Predictors: (Constant), Yr2015, Capital Exp, GO_Low, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Yr2013, Age , GO_Medium, Yr2012, Yr2014, Total Assets, GO_High				

Figure 8b  
*Anova for ROE*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29503.623	13	2269.509	9.469	.000 <sup>b</sup>
	Residual	119114.436	497	239.667		
	Total	148618.059	510			
a. Dependent Variable: ROE						
b. Predictors: (Constant), Yr2015, Capital Exp, GO_Low, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Yr2013, Age , GO_Medium Yr2012, Yr2014, Total Assets, GO_High						

Figure 8c

*ROE, regression analysis, independent variables, government ownership and year effect*

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.009	2.434		.679
	Long Term Debt	-.450	.087	-.216	.000
	Total Asset				
	Total Assets	.004	.003	.076	.158
	Market to Book Value	-3.660	.579	-.261	.000
	Capital Exp	.367	.135	.145	.007
	Age	.105	.044	.107	.018
	Current Ratio	.438	.257	.070	.090
	GO_Low	-.145	.108	-.074	.178
	GO_Medium	.000	.060	.000	.995
	GO_High	.047	.029	.090	.110
	Yr2012	3.563	2.178	.083	.103
	Yr2013	2.168	2.173	.051	.319
	Yr2014	3.868	2.168	.091	.075
	Yr2015	-.921	2.173	-.022	.672

a. Dependent Variable: ROE



Figure 9a  
*R Square for EPS. Regression analysis, government ownership and year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.518 <sup>a</sup>	.268	.249	.36417303
a. Predictors: (Constant), Yr2015, Capital Exp, GO_Low, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Yr2013, Age , GO_Medium, Yr2012, Yr2014, Total Assets, GO_High				

Figure 9b  
 Anova for EPS

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.115	13	1.855	13.987	.000 <sup>b</sup>
	Residual	65.913	497	.133		
	Total	90.028	510			

a. Dependent Variable: EPS

b. Predictors: (Constant), Yr2015, Capital Exp, GO\_Low, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Yr2013, Age , GO\_Medium, Yr2012, Yr2014, Total Assets, GO\_High

Figure 9c

*EPS, regression analysis, independent variables, government ownership and year effect*

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standard ized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-.045	.057		.432
	Long Term Debt	-.008	.002	-.154	.000
	Total Asset				3.866
	Total Assets	.000	.000	.336	6.567
	Market to Book Value	.019	.014	.056	1.412
	Capital Exp	.003	.003	.041	.796
	Age	.004	.001	.170	3.918
	Current Ratio	.018	.006	.120	3.029
	GO_Low	-.007	.003	-.147	2.778
	GO_Medium	-.002	.001	-.077	1.563
	GO_High	-.001	.001	-.109	2.037
	Yr2012	.064	.051	.061	1.246
	Yr2013	.034	.051	.033	.672
	Yr2014	.032	.051	.030	.623
	Yr2015	.004	.051	.004	.942

a. Dependent Variable: EPS

Figure 10a

*R Square for ROA. Regression analysis, government ownership and without year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.312 <sup>a</sup>	.097	.081	7.20807921
a. Predictors: (Constant), GO_High, Current Ratio, Market to Book Value, Total Assets, Long Term Debt Total Asset , GO_Medium, Age , Capital Exp, GO_Low				

Figure 10b  
*Anova for ROA*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2797.507	9	310.834	5.983	.000 <sup>b</sup>
	Residual	26030.159	501	51.956		
	Total	28827.666	510			
a. Dependent Variable: ROA						
b. Predictors: (Constant), GO_High, Current Ratio, Market to Book Value, Total Assets, Long Term Debt Total Asset , GO_Medium, Age , Capital Exp, GO_Low						

Figure 10c

*ROA, regression analysis, independent variables, government ownership low, medium and high without year effect*

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.645	.951		.678
	Long Term Debt	-.148	.040	-.161	.000
	Total Asset				
	Total Assets	.000	.001	.015	.264
	Market to Book Value	-.561	.269	-.091	.037
	Capital Exp	.152	.063	.136	.016
	Age	.060	.021	.140	.003
	Current Ratio	.253	.120	.092	.035
	GO_Low	-.076	.050	-.088	.130
	GO_Medium	-.025	.028	-.049	.370
	GO_High	-.001	.014	-.006	.915

a. Dependent Variable: ROA

Figure 11a  
*R Square for ROE. Regression analysis, government ownership and year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431 <sup>a</sup>	.186	.171	15.538455
a. Predictors: (Constant), GO_High, Current Ratio, Market to Book Value, Total Assets, Long Term Debt Total Asset , GO_Medium, Age , Capital Exp, GO_Low				

Figure 11b  
*Anova for ROE*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27654.817	9	3072.757	12.727	.000 <sup>b</sup>
	Residual	120963.242	501	241.444		
	Total	148618.059	510			

a. Dependent Variable: ROE

b. Predictors: (Constant), GO\_High, Current Ratio, Market to Book Value, Total Assets, Long Term Debt Total Asset , GO\_Medium, Age , Capital Exp, GO\_Low

Figure 11c  
*ROE, regression analysis, independent variables, government ownership low, medium and high without year effect*

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.826	2.050		1.378	.169
Long Term Debt Total Asset	-.454	.087	-.218	5.223	.000
Total Assets	.004	.003	.076	1.411	.159
Market to Book Value	-3.760	.579	-.268	6.495	.000
Capital Exp	.377	.135	.149	2.789	.005
Age	.104	.044	.107	2.353	.019
Current Ratio	.438	.258	.070	1.698	.090
GO_Low	-.142	.108	-.073	1.312	.190
GO_Medium	.002	.060	.002	.035	.972
GO_High	.047	.029	.091	1.619	.106

a. Dependent Variable: ROE

Figure 12a

*R Square for EPS. Regression analysis, government ownership and year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.515 <sup>a</sup>	.265	.252	.36346709

a. Predictors: (Constant), GO\_High, Current Ratio, Market to Book Value, Total Assets, Long Term Debt Total Asset , GO\_Medium, Age , Capital Exp, GO\_Low

Figure 12b  
*Anova for EPS*

ANOVA <sup>a</sup>					
Model		Sum of Squares	df	Mean Square	F
1	Regression	23.842	9	2.649	20.052
	Residual	66.186	501	.132	
	Total	90.028	510		

a. Dependent Variable: EPS  
b. Predictors: (Constant), GO\_High, Current Ratio, Market to Book Value, Total Assets, Long Term Debt Total Asset , GO\_Medium, Age , Capital Exp, GO\_Low

Figure 12c  
*EPS, regression analysis, independent variables, government ownership low, medium and high without year effect*

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	-.017	.048		-.349 .728
	Long Term Debt Total Asset	-.008	.002	-.155	- 3.901 .000
	Total Assets	.000	.000	.335	6.559 .000
	Market to Book Value	.018	.014	.052	1.322 .187
	Capital Exp	.003	.003	.044	.867 .386
	Age	.004	.001	.170	3.935 .000
	Current Ratio	.018	.006	.119	3.027 .003
	GO_Low	-.007	.003	-.147	- 2.786 .006
	GO_Medium	-.002	.001	-.076	- 1.542 .124
	GO_High	-.001	.001	-.109	- 2.041 .042

a. Dependent Variable: EPS



Figure 13a

*R Square for ROA. Regression analysis, government ownership (all) without year effect.*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.303 <sup>a</sup>	.092	.079	7.21539704
a. Predictors: (Constant), Total Assets, Long Term Debt Total Asset, Market to Book Value, Current Ratio, Government Ownership, Age, Capital Exp				

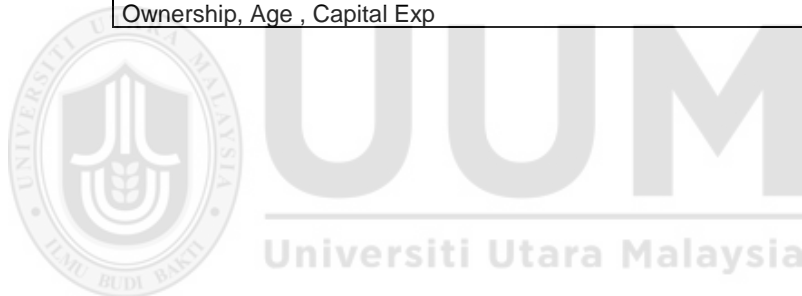


Figure 13b

*Anova for ROA*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2640.503	7	377.215	7.245	.000 <sup>b</sup>
	Residual	26187.163	503	52.062		
	Total	28827.666	510			
a. Dependent Variable: ROA						

b. Predictors: (Constant), Total Assets, Long Term Debt  
Total Asset , Market to Book Value, Current Ratio,  
Government Ownership, Age , Capital Exp

Figure 13c  
ROA, regression analysis, independent variables, government  
ownership (all) without year effect

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-.371	.763		.627
	Government Ownership	.008	.012	.030	.503
	Long Term Debt Total Asset	-.146	.040	-.159	.000
	Current Ratio	.245	.120	.089	.041
	Market to Book Value	-.558	.268	-.090	.038
	Capital Exp	.140	.062	.125	.026
	Age	.063	.020	.146	.002
	Total Assets	.001	.001	.023	.682

a. Dependent Variable: ROA

Figure 14a  
*R Square for ROE. Regression analysis, government ownership without year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.425 <sup>a</sup>	.180	.169	15.562154
a. Predictors: (Constant), Total Assets, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Age , Capital Exp				



Figure 14b  
*Anova for ROE*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26801.206	7	3828.744	15.809	.000 <sup>b</sup>
	Residual	121816.853	503	242.181		
	Total	148618.059	510			

a. Dependent Variable: ROE

b. Predictors: (Constant), Total Assets, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Age , Capital Exp

Figure 14c

*ROE, regression analysis, independent variables, government ownership (all) without year effect.*

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.385	1.646		.234
	Government Ownership	.074	.027	.116	2.738
	Long Term Debt	-.450	.087	-.216	-
	Total Asset				5.165
	Current Ratio	.421	.258	.068	1.631
	Market to Book Value	-3.771	.578	-.269	-
	Capital Exp	.345	.135	.136	2.567
	Age	.109	.044	.111	2.470
	Total Assets	.005	.003	.084	1.563

a. Dependent Variable: ROE

Figure 15a  
*R Square for EPS. Regression analysis, government ownership and year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505 <sup>a</sup>	.255	.244	.36522170

a. Predictors: (Constant), Total Assets, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Age , Capital Exp



Figure 15b  
*Anova for EPS*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.934	7	3.276	24.563	.000 <sup>b</sup>
	Residual	67.094	503	.133		
	Total	90.028	510			

a. Dependent Variable: EPS

b. Predictors: (Constant), Total Assets, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Age , Capital Exp

Figure 15c

*EPS, regression analysis, independent variables, government ownership (all) without year effect.*

Coefficients <sup>a</sup>						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Model						
1	(Constant)	-.084	.039		-2.172	.030
	Government Ownership	-.001	.001	-.042	-1.049	.295
	Long Term Debt	-.008	.002	-.152	-3.814	.000
	Total Asset					
	Current Ratio	.018	.006	.118	2.973	.003
	Market to Book Value	.017	.014	.050	1.283	.200
	Capital Exp	.002	.003	.028	.555	.579
	Age	.004	.001	.173	4.028	.000
	Total Assets	.000	.000	.345	6.760	.000

a. Dependent Variable: EPS

Figure 16a

*R Square for ROA. Regression analysis, government ownership (all) with year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.324 <sup>a</sup>	.105	.085	7.19023400

a. Predictors: (Constant), Total Assets, Yr2015, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Yr2012, Yr2013, Age , Yr2014, Capital Exp

Figure 16b  
Anova for ROA

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3029.633	11	275.421	5.327	.000 <sup>b</sup>
	Residual	25798.033	499	51.699		
	Total	28827.666	510			

a. Dependent Variable: ROA

b. Predictors: (Constant), Total Assets, Yr2015, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Yr2012, Yr2013, Age , Yr2014, Capital Exp

Figure 16c  
*ROA, regression analysis, independent variables, government ownership (all) with year effect.*

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-1.621	.989		.102
	Government Ownership	.009	.012	.031	.486
	Long Term Debt	-.144	.040	-.156	.000
	Total Asset				3.569
	Current Ratio	.247	.119	.090	.039
	Market to Book Value	-.511	.268	-.083	.058
	Capital Exp	.135	.062	.121	.031
	Age	.062	.020	.144	.002
	Yr2012	2.010	1.011	.107	.047
	Yr2013	1.835	1.009	.098	.069
	Yr2014	1.855	1.007	.099	.066
	Yr2015	.250	1.009	.013	.804
	Total Assets	.001	.001	.024	.673
a. Dependent Variable: ROA					



Figure 17a

*R Square for ROE. Regression analysis, government ownership (all) with year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.439 <sup>a</sup>	.193	.175	15.505418
a. Predictors: (Constant), Total Assets, Yr2015, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Yr2012, Yr2013, Age , Yr2014, Capital Exp				

Figure 17b  
*Anova for ROE*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28649.483	11	2604.498	10.833	.000 <sup>b</sup>
	Residual	119968.576	499	240.418		
	Total	148618.059	510			

a. Dependent Variable: ROE

b. Predictors: (Constant), Total Assets, Yr2015, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Yr2012, Yr2013, Age , Yr2014, Capital Exp

Figure 17c  
*ROE, regression analysis, independent variables, government ownership (all) with year effect.*

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standard ized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.435	2.133		-.673	.502
Government Ownership	.074	.027	.116	2.750	.006
Long Term Debt	-.446	.087	-.214	-	.000
Total Asset				5.138	
Current Ratio	.420	.257	.067	1.630	.104
Market to Book Value	-3.668	.579	-.262	-	.000
Capital Exp	.334	.134	.132	2.491	.013
Age	.109	.044	.112	2.487	.013
Yr2012	3.550	2.181	.083	1.628	.104
Yr2013	2.098	2.175	.049	.964	.335
Yr2014	3.763	2.171	.089	1.734	.084
Yr2015	-1.022	2.176	-.024	-.470	.639
Total Assets	.005	.003	.084	1.570	.117
a. Dependent Variable: ROE					

Figure 18a

*R Square for EPS. Regression analysis, government ownership (all) with year effect*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.508 <sup>a</sup>	.258	.241	.36592845
a. Predictors: (Constant), Total Assets, Yr2015, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Yr2012, Yr2013, Age , Yr2014, Capital Exp				



Figure 18b  
*Anova for EPS*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.210	11	2.110	15.758	.000 <sup>b</sup>
	Residual	66.818	499	.134		
	Total	90.028	510			

a. Dependent Variable: EPS

b. Predictors: (Constant), Total Assets, Yr2015, Long Term Debt Total Asset , Market to Book Value, Current Ratio, Government Ownership, Yr2012, Yr2013, Age , Yr2014, Capital Exp

Figure 18c

*EPS, regression analysis, independent variables, government ownership (all) with year effect.*

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.111	.050		-2.202	.028
Government Ownership	-.001	.001	-.043	-1.047	.296
Long Term Debt Total Asset	-.008	.002	-.151	-3.779	.000
Current Ratio	.018	.006	.118	2.973	.003
Market to Book Value	.019	.014	.055	1.380	.168
Capital Exp	.002	.003	.025	.483	.630
Age	.004	.001	.173	4.019	.000
Yr2012	.063	.051	.060	1.227	.220
Yr2013	.033	.051	.032	.649	.516
Yr2014	.027	.051	.026	.524	.601
Yr2015	.001	.051	.001	.019	.985
Total Assets	.000	.000	.347	6.771	.000

a. Dependent Variable: EPS

Figure 10

*Jordan Economy Data from 2012-2015*

Economic variables	2012	2013	2014	2015
Economic Growth (GDP, annual variation in %)	2.7	2.8	3.1	2.4
Industrial Production (annual variation in %)	0.2	1.6	1.7	0.9
Unemployment rate	12.2	12.6	11.9	13.1
Public debt (% of GDP)	80.2	86.7	89.0	93.4
Inflation rate (CPI, annual variation in %)	4.5	4.8	2.9	-0.9
Export (USD Billion)	7.9	7.9	8.4	7.8
External Debt (% of GDP)	59.7	69	67.8	68.6

Source from World Economic Data 2016